

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A modem comprising:
memory adapted to store a plurality of PRBS generator definitions; ~~and~~
processing circuitry adapted to determine an operating environment of the modem, and to select one of the plurality of PRBS generator definitions based on the operating environment; and
wherein an indication of the selected PRBS generator definition is transmitted to a remote modem.
2. (Currently Amended) The modem according to claim 1, wherein the processing circuitry includes the memory.
3. (Currently Amended) The modem according to claim 1, wherein the processing circuitry comprises measuring circuitry.
4. (Original) The modem according to claim 3, wherein the measuring circuitry comprises a processor.
5. (Original) The modem according to claim 1, wherein the operating environment of the modem comprises at least one channel condition.
6. (Original) The modem according to claim 1, wherein the operating environment of the modem comprises a preselected criterion.
7. (Currently Amended) A communication system comprising:
a communication node having processing circuitry adapted to determine an operating environment of the communication node; ~~and~~
a management information node adapted to control the communication node based on the operating environment and a plurality of stored PRBS generator definitions; and

wherein an indication of a selected PRBS generator definition is transmitted to a remote modem.

8. (Currently Amended) The system according to claim 7, wherein the processing circuitry comprises memory for storing the plurality of PRBS generator definitions.

9. (Currently Amended) The system according to claim 7, wherein the processing circuitry comprises measuring circuitry.

10. (Original) The system according to claim 9, wherein the measuring circuitry comprises a processor.

11. (Previously Presented) The system according to claim 7, wherein the operating environment of the communication node comprises at least one channel connection.

12. (Previously Presented) The system according to claim 7, wherein the operating environment of the communication node comprises a preselected criterion.

13. (Original) The system of claim 7, wherein said plurality of PRBS generator definitions are stored on said management information node.

14. (Original) The system of claim 7, further comprising memory communicating with at least the management information node.

15. (Original) The system of claim 14, wherein said plurality of PRBS generator definitions are stored on said memory.

16. (Original) The system of claim 7, wherein said management information node comprises a MIB.

17. (Previously Presented) The system of claim 12 wherein the preselected criterion comprises a user selection.

18. (Currently Amended) A method of communication comprising:

determining an operating environment of a communication node; ~~and~~
selecting, based on the measured environment, a PRBS generator from a plurality
of stored PRBS generators; and
transmitting an indication of the selected PRBS generator to a remote modem.

19. (Original) The method as recited in claim 18, wherein determining an operating environment comprises measuring at least one channel condition.

20. (Original) The method as recited in claim 18, wherein determining an operating environment comprises obtaining a preselected criterion.

21. (Currently Amended) A method of communication comprising:
determining a number of carriers to be used by a communication node; comparing
the number of carriers determined to a threshold; ~~and~~
selecting a first PRBS generator if the number of carriers determined is less than
the threshold, and a second PRBS generator if the number of carriers determined is greater than
the threshold; and
transmitting an indication of the selected PRBS generator to a remote modem.